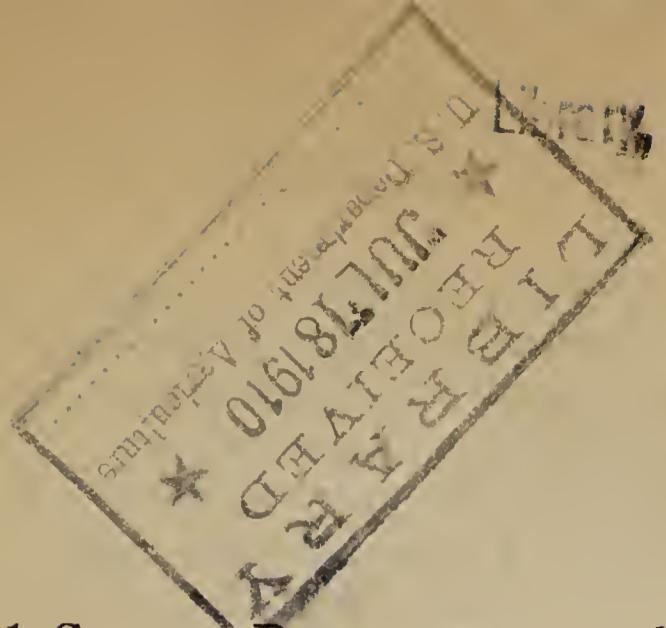


## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



P69150



Issued March 26, 1910.

B. P. I.—555.

No. "A"—70.

# United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Farmers' Cooperative Demonstration Work,

WASHINGTON, D. C.

---

## SOUTHERN FARM NOTES.

---

### THE CORN CROP.

The great American grain food for men and stock upon the farm is corn. Therefore the growing of an abundant supply of corn is one of the essentials of good farming.

The southern farmer should grow enough corn for every possible need on the farm. The reasons for this are plain. It has been demonstrated thoroughly that with proper preparation and cultivation he can grow as much per acre as the farmer in the best corn-growing sections. At prevailing prices it is cheaper to grow it than to buy it, even with 12 and 15 cent cotton. The best farming requires systematic rotation of crops on all lands. Corn is a standard crop and is especially valuable from the fact that we not only get the corn crop, but can grow with it a heavy crop of peas, which will give a liberal supply of nitrogen and humus, two of the most valuable things in building up soils.

Corn is a tropical plant, and all other things being equal it should thrive better in the Southern than in the Northern States. This, however, is not the case. What is the reason? The main cause is the lack of suitable seed beds in the South.

Experiments have shown that, while it sends many of its roots 3 or 4 feet deep, the corn plant places the great body of its feeding roots from 3 to 12 inches below the surface where the soil is made loose enough by plowing or by frost to permit it. The roots send out in every direction an infinite number of hairlike growths, which absorb moisture and food. On soils properly prepared and in sections of fair rainfall the feeding ground for corn is usually from 2 to 12 inches below the surface. This is strictly true in the great corn belt of the

Northwest. In the South there has been too much shallow plowing. Breaking 3 or 4 inches is not deep enough to make a suitable feeding place for corn roots; on average land it furnishes neither sufficient food nor sufficient moisture for the plant to do its best. The trouble with a shallow seed bed is that it is too wet under heavy rainfall and too dry in periods of drought. A long advance will be made toward increasing the average yield fivefold if the following suggestions are carried out:

- (1) Make a deep seed bed, suited to the requirements of the corn plant.
- (2) Fill this seed bed with vegetable matter and give it good drainage.
- (3) Use the best seed.
- (4) Practice intensive cultivation.

The disk plow, the adjustable section harrow, and the weeder are valuable aids in producing the corn crop.

#### **THE COWPEA CROP.**

The cowpea is a part of the corn problem in the South, and the plan generally adopted of broadcasting half a bushel to a bushel of seed to the acre at the time of the last working of the corn and cultivating it has given good results.

The corn should be gathered as early as practicable and the stock turned in. Fortunate is the man who has tight fencing, so that the pigs, as well as the work stock and cattle, can have a chance at the cowpeas. On some of the poorer lands the corn rows may be made 6 feet apart and a row of peanuts planted between them; this will add to the value of the fall pasture when no cowpeas are planted. As soon as the crop of cowpeas has been fairly well grazed, break deep, setting the furrows on edge; harrow; sow to oats, vetch, winter barley, or rye, and turn this under in the spring. This plan will economically improve the soil and greatly increase the average crop production.

Where the season is too short to successfully carry out the foregoing plan it has been found that planting vetch and rye or crimson clover in the corn and turning them under in the spring rapidly builds up the soil and is much more economical than the use of large quantities of commercial fertilizers. The general object is to keep the land occupied summer and winter, producing something of value for food or fertilizer and at the same time protecting the loose soils from washing or leaching by the heavy rains of winter and spring.

#### **TOOLS AND IMPLEMENTS REQUIRED.**

High-priced labor and generally changed conditions make it imperative that more and better farm implements be used on every farm, whether large or small in area. No man can farm now without

at least a good breaking or turning plow (a reversible disk is preferable), a disk harrow, a section harrow, a good combination planter, a weeder, and one single-row and one double-row cultivator. The above are essential, and if the size of the farm and the means of the farmer will allow it, many other convenient labor-saving tools can be added. A good mower and a rake for handling the hay are very necessary.

#### **MORE HORSE POWER NECESSARY.**

To use more horse power and less man power per acre or to quit farming is a necessity confronting the South.

There should be more mares on the farm. In the future few small farmers will find it profitable to keep mules; the colts must pay for the expense of using more horse power. In this connection, the more economical feeding of work stock on the farm is of primary importance. Feeding a horse or a mule on pulled corn fodder and corn is so expensive and out of date that it is surprising to find anyone doing it. Farmers have fully proved that pasture for summer and well-cured hay for winter should be the main reliance. By a pasture is not meant a brush patch or a field of weeds, but a tract of land well set in nutritious grasses and well located so as to be usable at all times.

The best results are obtained by providing two pastures, in order to alternate in their use, and especially to allow one to have quite a growth of grass for late fall feeding. Some farmers use one pasture for late fall and spring, and the other during the summer and early fall months; others believe that the best results are obtained by alternating the use of these pastures every month. It is just as injurious to the rapid growth of grass to keep it closely grazed as it would be to a bush to cut it off every morning. It is estimated that three or four times as many animals can be kept on a given number of acres by dividing the land into two pastures and using them alternately for grazing. It is certain that the stock does better under such conditions.

#### **THE HAY CROP.**

The permanent meadow, where it can be secured, is one of the most economical sources of food for animals known. In the extreme South, where the soil is adapted to them, alfalfa, Japan clover, and Bermuda grass rank high. Farther north there are standard grasses which produce well. But if a farmer does not have a permanent meadow of any kind he can easily supply a substitute from the following assortment of forage crops. He can select only one or two of these crops for his needs, but where it is possible it is best to grow patches of all of them, as it will give variety, and the ration can be more easily balanced.

## COWPEAS.

The cowpea is the most generally grown and most valuable hay and forage plant in the South. It can be grown anywhere, and covers a longer season of growth than any other. It furnishes large quantities of nutritious feed stuff and, besides, builds up the soil rapidly by furnishing nitrogen and humus.

The soil should be well prepared, as for any other farm crop. Poor preparation is the cause of most of the apparent failures with this crop.

For very early use the Whippoorwill or the New Era variety can be sown early in April in rows 30 inches apart with a corn planter, one-half bushel of seed per acre. Cultivate well, and where land is not fertile use 200 pounds of acid phosphate and 50 pounds of cotton-seed meal per acre to give vigorous growth. Planted in this way cowpeas will give a heavy crop of grain and vines for hay in early summer.

For later crops, and where a very heavy yield is desired, the Clay, Unknown, or some other well-known variety may be used.

Hay made from pea vines planted in this way supplies ordinary work stock with complete rations at a season when most needed.

## COWPEAS AND SORGHUM.

Where preferred and when it is not specially desirable to have very early hay, sorghum and cowpeas may be sown together broadcast, one-half bushel of sorghum to one and one-half bushels of cowpeas per acre. Amber sorghum and some early variety of cowpeas will mature quickly, but for heavy yields Orange sorghum and a running variety of cowpeas should be used.

The land should be well broken and thoroughly prepared before sowing the seed. This point must be observed in all cases.

## SOY BEANS.

In some localities the soy bean has proved a most desirable hay and forage plant. The beans are very rich in protein and the stalk is equal to pea hay or alfalfa when properly cured. While not adapted to all classes of soils, as is the cowpea, soy beans should be given a trial on every farm.

Sow in rows 3 feet apart, one-half bushel of good seed per acre, cultivate well, and cut when the plants first begin to ripen or turn yellow. When intended for seed purposes the crop should be allowed to ripen a little longer than for hay.

The soy bean has been found valuable for hogs, where they are allowed to gather the crop from the field.

## VELVET BEANS.

In the Gulf States, and on poor soils especially, the velvet bean will be found a profitable crop. It makes a very luxuriant growth, requires little cultivation, and when planted early will mature large quantities of seed, sufficient to be pastured off by cows and hogs. The vine is too rank and coarse for hay, but adds more fertility to the soil than any of the legumes on account of its growth and its root system.

The seed is cheaper than soy beans or cowpeas, as 1 bushel will be sufficient to plant 4 or 5 acres. For building up very poor soils it ranks first among legumes both as to cost and efficiency.

## PEANUTS.

The value of peanuts as a hay and food crop has never been appreciated. The peanut will grow on the larger portion of the uplands of the South. As a crop for varied uses nothing excels it. It can be made profitable when nuts are grown for market, and it has been found to produce more and cheaper pork than any other crop. When used as hay for horses or cattle the vines and nuts are pulled up and cured together. In this shape they are relished by all kinds of stock, and as they are highly nutritious they can be utilized in place of more expensive grains to a large extent.

Peanuts should not be planted until warm spring weather. Plant on a well-prepared soil, in rows 3 feet apart and 12 inches apart in drill for the Spanish variety and a greater distance for larger varieties. The Spanish is preferred for feeding purposes.

The peanut, like the other plants mentioned, is a soil improver, and every farmer should look with more favor on its place among the farm crops.

## ALL CORN AND HAY SHOULD BE GROWN ON THE FARM.

With the splendid records of corn produced per acre in the Southern States, and with our advantages in climate and so many valuable forage crops to supplement grains for feeding to stock, it is a discredit for any farmer to buy corn or hay except in rare cases of misfortune.

S. A. KNAPP,  
*Special Agent in Charge.*

Approved:

G. H. POWELL,  
*Acting Chief of Bureau.*

MARCH 2, 1910.

